1:2 Component Audio Over CAT5

EXT-COMPAUD-CAT5-142

User Manual

www.gefen.com

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INTRODUCTION

Congratulations on your purchase of the 1:2 Component Audio Over CAT5. Your complete satisfaction is very important to us.

Gefen

Gefen delivers innovative, progressive computer and electronics add-on solutions that harness integration, extension, distribution and conversion technologies. Gefen's reliable, plug-and-play products supplement cross-platform computer systems, professional audio/video environments and HDTV systems of all sizes with hard-working solutions that are easy to implement and simple to operate.

The Gefen 1:2 Component Audio Over CAT5

The 1:2 Component Audio over CAT5 extends and duplicates your audio and component video signals at distances of up to 1000 feet away. Remote AV signals are received from the 1:2 Component Audio over CAT5 Sender unit, via industry-standard CAT5 network cables.

The 1:2 Component Audio over CAT5 will extend Analog Component as well as Analog Audio or Digital Audio via S/PDIF or TOSlink and provide two full sets of AV signal output on the receiving end. Audio is transmitted digitally over the CAT-5 cable and both the analog and digital audio outputs are active on the receiver side.

How It Works

The 1:2 Component Audio CAT5 Distribution Amplifier Sender unit is placed at the source location. A standard CAT5 cable is run from the 1:2 Component Audio over CAT5 Sender to the 1:2 Component Audio over CAT5 Receiver unit. The 1:2 Component Audio over CAT5 Receiver unit connects to your remote HDTV component video displays, and audio inputs.

Note: Both analog and digital audio outputs are active on the receiver side when two-channel analog audio is used. If multi-channel digital audio is used, then the analog audio outputs will be inactive.

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE 1:2 COMPONENT AUDIO OVER CAT5

- Use only industry standard Category-5 Enhanced (CAT-5e) cable to operate the 1:2 Component Audio Over CAT5. Cat-6 cables can also be used.
- Unit will convert digital audio to analog audio and analog audio to digital audio. It will not however down-mix multichannel digital audio tracks to analog 2 channel. Please see page 8 for additional information.
- Both the sending and receiving units must be powered with the supplied power adapters for proper operation.
- Field termination of CAT5e cabling must adhere to the TIA/EIA-568-B specification. Please see page 10 for additional information.

FEATURES

Features

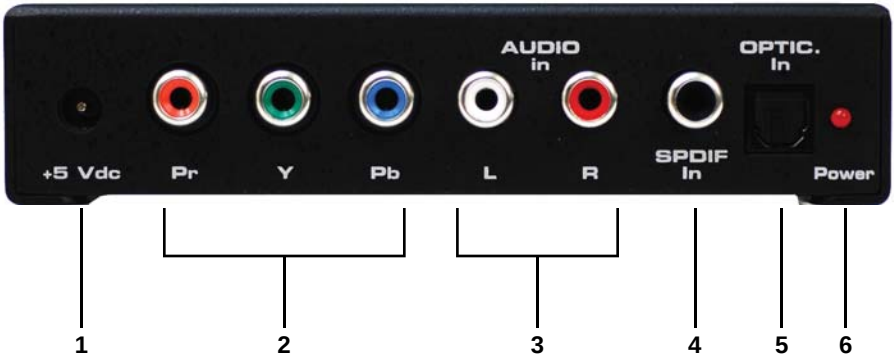
- Supports up to 1080p component video
- Supports analog L+R audio and multichannel digital audio via optical Toslink or S/PDIF jacks
- Simple plug-and-play installation
- Equalizations for different CAT-5 skews
- No loss of quality over long distances

Package Includes

(1) Component Audio Over CAT5 Sender
(1) 1:2 Component Audio Over CAT5 Receiver
(1) 6 Foot 5 RCA Component Video Cable
(2) 5V DC Power Supply
(1) User's Manual

SENDER PANEL LAYOUT

Front Panel



Back Panel

SENDER PANEL DESCRIPTIONS

1 5V DC Power Input
Connect the included 5V DC power supply input this port. Once this has been properly connected the power LED will become active.

2 3 RCA Component Input
Connect the component source device to this input.

3 2 RCA Analog Stereo Input
Connect the source's analog audio to this input.

4 SPDIF Digital Audio Input
Connect the source's SPDIF digital audio to this input.

5 Optical Digital Audio Input
Connect the source's optical digital audio to this input.

6 Power LED Indicator
This LED will become active once the included 5V DC power supply is properly connected.

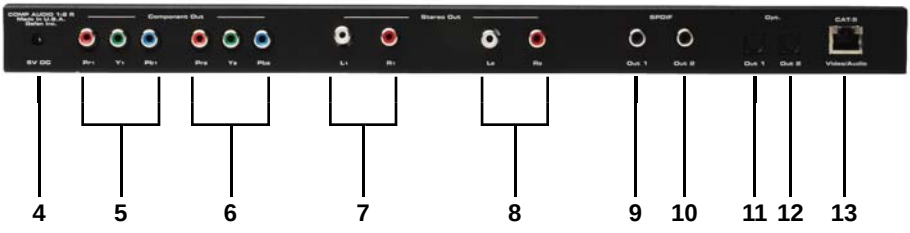
7 RJ-45 Jack
Connect the sending and receiving units together using a TIA/EIA-568-B terminated CAT-5, CAT-5e or CAT-6 cable. See page 10.

NOTE: Only one audio input type, digital or analog, should be connected at one time.

RECEIVER PANEL LAYOUT

Front Panel

Back Panel



RECEIVER PANEL DESCRIPTIONS

1 Brightness Trim Pot
Use this adjustment Trim Pot to brighten/darken the output video signal. See page 9.

2 Focus Trim Pot
Use this adjustment Trim Pot to focus/blur the output video signal. See page 9.

3 Power LED Indicator
This LED will become active once the included 5V DC power supply is properly connected.

4 5V DC Power Input
Connect the included 5V DC power supply input this port. Once this has been properly connected the power LED will become active.

5 3 RCA Component Output 1
Connect one component display device to this output.

6 3 RCA Component Output 2
Connect one component display device to this output.

7 2 RCA Analog Stereo Output 1
Connect this output to either the display or audio receiver.

8 2 RCA Analog Stereo Output 2
Connect this output to either the display or audio receiver.

9 SPDIF Digital Audio Output 1
Connect this output to either the display or audio receiver.

10 SPDIF Digital Audio Output 2
Connect this output to either the display or audio receiver.

11 Optical Digital Audio Output 1
Connect this output to either the display or audio receiver.

12 Optical Digital Audio Output 2
Connect this output to either the display or audio receiver.

13 RJ-45 Jack
Connect the sending and receiving units together using a TIA/EIA-568-B terminated CAT-5, CAT-5e or CAT-6 cable. See page 10.

CONNECTING AND OPERATING THE 1:2 COMPONENT AUDIO OVER CAT5

How to Connect the 1:2 Component Audio Over CAT5

1. Connect the component video source to the Component Audio Over CAT5 sending unit using the supplied 3 RCA component cable.

2. Connect audio to the Component audio Over CAT5 sender unit using either user supplied audio cables or the included audio cables.

   Digital Audio: Use either the digital S/PDIF or optical inputs.

   Analog Audio: Use the 2 RCA analog stereo inputs.

NOTE: Analog audio will be output on both the digital and analog audio connectors of the receiving unit. If the digital audio that is input into the sending unit is 2 channel PCM, audio will be output on both the digital and analog audio connectors. Multi-channel bit-stream digital audio will be output on the digital connectors only.

3. Connect up to 2 component displays to the 1:2 Component Audio Over CAT5 receiving unit using user supplied 3 RCA component cables.

NOTE: Both outputs are mirrored images of the component video source.

4. Connect either the digital or analog audio outputs to the display or the receiver using user supplied audio cables.

5. Connect the 1:2 Component Audio Over CAT5 sending and receiving units together using a single CAT-5, CAT-5e or CAT-6 cable (terminated according to the TIA/EIA-568-B specification).

6. Connect the included 5V DC power adapters to both the sending and receiving units.

7. Power on all displays and the source.

ADJUSTING THE VIDEO QUALITY

The 1:2 Component Audio Over CAT5 receiving unit can adjust both the brightness and focus of the reproduced video signal. Differences in cable skew and distance are factors that can affect these settings. To adjust these settings and tune the video signal please use the steps below.

Brightness

If the image appears too dim or too bright, adjust the brightness trim pot on the front of the Component/Audio Receiver.

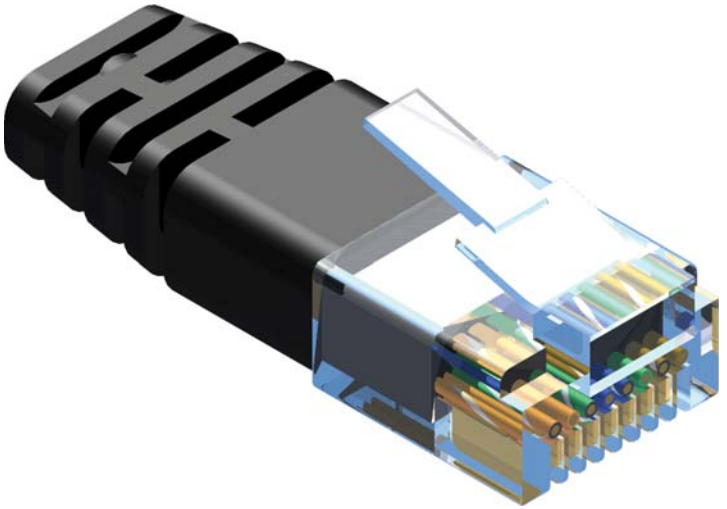
Insert a small flathead device into the brightness trim pot hole and turn the trim pot in either a clockwise or counterclockwise direction. Turn the trim pot in very small increments until the desired brightness is reached.

Focus

If the image is out of focus, or the colors are smeared, adjust the focus trim pot on the front of the Component/Audio Receiver.

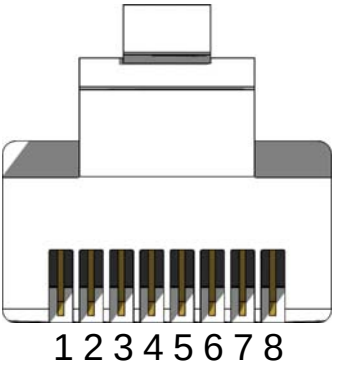
Insert a small flathead device into the focus trim pot hole and turn the trim pot in either a clockwise or counterclockwise direction. Turn the trim pot in very small increments until the image clears and there is not blurriness or smearing.

NETWORK CABLE WIRING DIAGRAM



Gefen has specifically engineered their products to work with the TIA/EIA-568-B specification. Please adhere to the table below when field terminating cable for use with Gefen products. Failure to do so may produce unexpected results and reduced performance.

Pin	Color
1	Orange / White
2	Orange
3	Green / White
4	Blue
5	Blue / White
6	Green
7	Brown / White
8	Brown



CAT-5, CAT-5e, and CAT-6 cabling comes in stranded and solid core types. Gefen recommends using solid core cabling. CAT-6 cable is also recommended for best results.

Each cable run must be one continuous run from one end to the other. No splices or use of punch down blocks.

SPECIFICATIONS

Video Amplifier Bandwidth ..... 350 MHz

Input Video Signal ..... 1.2 Volts p-p

Input Sync Signal ..... 5 Volts p-p (TTL)

Horizontal Frequency Range ..... 15-70 KHz

Vertical Frequency Range ..... 30-170 Hz

Video In/Out ..... 6 RCA component

Audio In/Out ..... 4 RCA Audio, 2 SPDIF, 2 TOSlink

Link Connector ..... RJ-45 Shielded

Power Supply ..... 5V DC

Power Consumption Sender..... 5 Watts max.

Power Consumption Receiver..... 5 Watts max.

Shipping Weight ..... 5 lbs.